

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 14654-3PCT | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416) | |
| International application No. PCT/CA 03/01863 | International filing date (<i>day/month/year</i>) 28.11.2003 | Priority date (<i>day/month/year</i>) 29.11.2002 |
| International Patent Classification (IPC) or both national classification and IPC C05F3/00 | | |
| Applicant SA MAJESTE LA REINE DU CHEF DU CANADA... et al. | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

I ☒ Basis of the opinion

II ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability



IV ☐ Lack of unity of invention

V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

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| Date of submission of the demand 22.06.2004 | Date of completion of this report 23.02.2005 |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized Officer Saldamli, S Telephone No. +49 89 2399-8560  |

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/CA 03/01863**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-20 as originally filed

Claims, Numbers

1-10 as originally filed

Drawings, Sheets

1/11-11/11 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/CA 03/01863**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

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|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-10 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | 1-10 |
| | No: Claims | |
| Industrial applicability (IA) | Yes: Claims | 1-10 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/CA 03/01863

The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: US-B-6409788

D2: EP-A-0530826

D3: US-A-5296147

The subject matter of claims 1-8 is novel under Article 33(2) PCT.

D1-D4 disclose methods for treatment of manure so as to reduce its phosphate content. None of them disclose the use of by-products of magnesium industry during electrolysis and foundry for de-phosphatization of manure.

The subject matter of claims 1-8 involves an inventive step under Article 33(3) PCT. D1 is identified as the closest prior art. It discloses a method of treating organic waste. The treatment comprises employing a flocculant, a base, an ammonia retaining agent and a phosphate precipitating agent. Thus the main purpose is chemical and physical treatment of organic wastes. Although it is obvious that the by-products of magnesium industry contains magnesium in metallic and/or in compound form, neither D1 nor any other cited document refer to the employment of a by-product such like. On the contrary, all of them refer to the employment of commercially available magnesium compounds. In addition to this, magnesium is not the only reagent employed to reduce the phosphate amount in manure or organic wastes such like (see D3 claim 10). Therefore there is no hint or any indication that would prompt the skilled reader to solve the problem like the present application does.

The solid fraction obtained by the method of claims 1-8 chemically proves to be suitable for use as a fertilizer and it provides a long term Mg availability (3 years) to the crops. Since the claimed method of phosphate reduction in pig manure is novel and inventive, the use of the end-product as a fertilizer due to its chemical composition is also novel and inventive. Therefore the subject matter of claims 9 and 10 also complies with the requirements of Article 33(2) and (3) PCT.